

CLMPTO  
G. STANLEY  
09/09/04

## CLAIMS 1-5 CANCELED

6. A method for reducing congestion in a network layer (16) of a router machine (15) when said network layer (16) accumulates in a queue (20) datagrams (12) to be transmitted through a first network (18), comprising:

- a first step (29) that measures a fullness level of said queue (20), in order to generate a signal (NIV) based on said fullness level;
- a second step (30) detecting any datagram received from said network (18), wherein a field (28) of a first transport layer (6) contains a received window value (VFR);
- a third step (31) generating a sent window value (VFE) based on said signal (NIV) in order to process the detected datagram by entering said sent window value (VFE) into said received window value in said field (28), the sent window value (VFE) being at least equal to a remaining window value (VFER) representing, for each connection established, the number of bytes transmittable at the time the sent window value is generated and;
- a fourth step (32) routing the processed datagram through a second network (17) to a second transport layer (4), which limits said transport layer (4) send rate based on the sent window value (VFE).--

7. The method according to claim 6, wherein the signal (NIV) is generated by a binary function that results in an alarm state when the fullness level of the queue (20) exceeds a first threshold value....

Rule  
126  
BEST AVAILABLE COPY

Art Unit: 28

*8* The method according to claim *1*, wherein the signal (NIV) is generated by means of a polynomial function proportional to the fullness level and inversely proportional to the capacity of the queue (20).--

*9* The method according to claim *1*, wherein the sent window value (VFE) is generated by limiting the received window value (VFR) when the signal (NIV) is in the alarm state.--

*10* A device for reducing congestion in a network layer (16) of a router machine (15) when it accumulates, in a queue (20) in a memory of said router machine (15), datagrams (12) to be transmitted through a first network (18), comprising means (33) in said memory for detecting any datagram received from said first network (18) wherein a field (28) of a first transport layer (6) contains a received window value (VFR), and means for entering a sent window value (VFE) into said received window value (VFR) based on a fullness level (26) of said queue (20) before routing the detected datagram through a second network (17) to a second transport layer (4), said second transport layer (4) configured to limit its send rate based on the sent window value (VFE), the sent window value (VFE) being at least equal to a remaining window value (VFER) representing, for each connection established, the number of bytes transmittable at the time said number of bytes is generated.--

BEST AVAILABLE COPY